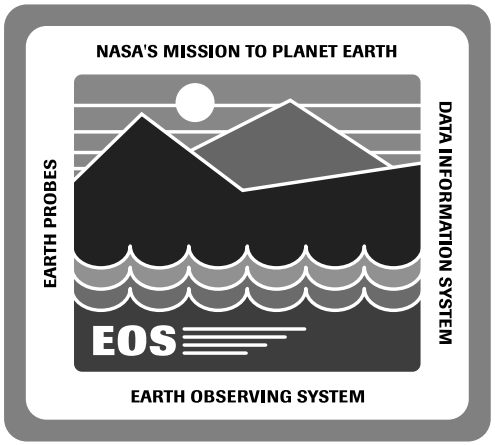
SDS - 4.6.3.2



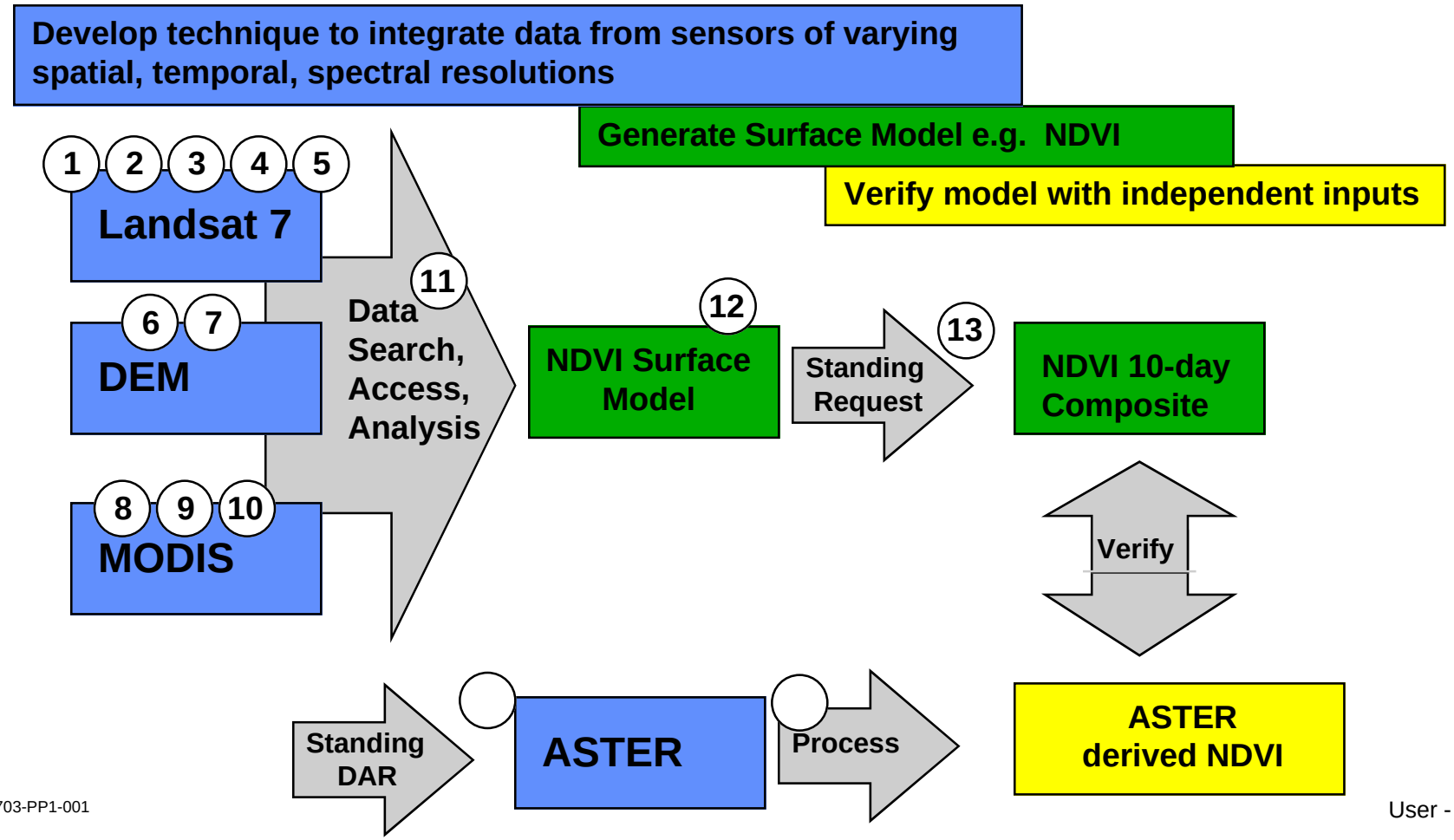
SDS Scenario #2

Mark Elkington/Ron Williamson

System Design Review - 28 June 1994

SDS Scenario #2 - User Interaction Science Overview

User Model Scenario #7 ("*Development of a method to integrate data sets of varying resolution*")



Scenario #2 - Step 0

User sets up connection to EDC Data Search Service

- **User looks for Landsat-7 services to help find data for the region of interest**

- **Move service reference to Desktop**

Scenario #2 - Step 1

User uses search service interface to submit a query for Landsat-7 data. is submitted and the results returned for review and selection by the user

- **establishes existing session**
- **Open Desktop Search Application - creates session with context**
- **Formulates Data Search Request - uses data dictionary to understand terms**
- **Specifies Search Parameters (sensor=Landsat7, space=region defined by polygon, time=range, processing level=L0R, results format = sorted, selectable, list)**

- **List of matching data received**

Scenario #2 - Step 2

User views query results, selects appropriate granules based on location and quality information

- **Views Result set through Desktop Viewers**
- **Selects a Landsat 7 result entry**
- **Requests a single band subset**
- **Specifies protocol for resulting data (ftp)**

- **Single band image returned to desktop**

Scenario #2 - Step 3, 4 & 5

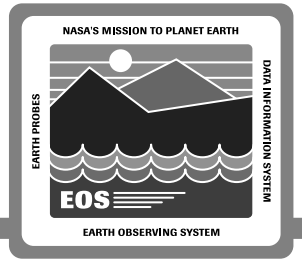
The user inspects single band image to establish suitability; requests full data granule for each of the selected images

- **Inspects image using image browse and visualization tools**
- **Searches for cloud free areas, flat & varied terrain, static features over 3 week period**

user may use system to collaborate with colleagues

- **Repeats Steps 2 and 3 until satisfied with results**
- **Requests delivery of full data granules using overnight file transfer**
- **data received**

Scenario #2 - Step 6, 7



User searches for DEMs available for the region of interest.

- **User asks for information on the DEM Providers**

  system searches Advertisements for DEM Providers and provides links to associated Guide information

- **Accesses guide information on each provider to verify DEM content, extent, format, quality - establishes that best provider is a research group associated with the SCF at 'Univ_of_X'**

- **Requests DEM**

- **Receives DEM**

Scenario #2 - Step 8, 9, 10

The user requests a list of MODIS Level 1B data which are geographically and temporally coincident with the Landsat granules previously selected.

- **User uses Advertising Service to access MODIS Level 1B service provider (GDAAC)**

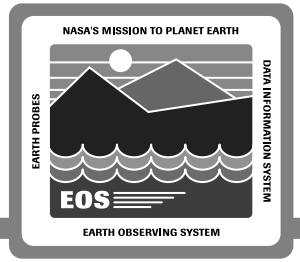
  uses advertising service as described in Step 0

- **Specifies query for MODIS data using the saved results from the Landsat-7 search**

- **MODIS data received at desktop**

Scenario #2 - Step 11

Scenario #2 - Step 12



- **User prepares method using 'ingest preparation toolkit' on desktop. Transfers method to LPDAAC 'method' ingest service**

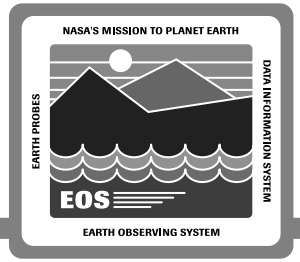
system ingests method and associated files

- **User is informed of availability of I&T resource and establishes an algorithm/method I&T session (has already read Guide material on method I&T).**

system supports user in performing method I&T. User passes method to DAAC I&T staff for association with Data Server

- **User is notified that method is available at LPDAAC**

Scenario #2 - Step 13



- **User prepares a processing request, that will be activated every 10 days. The processing request identifies:**
  - **process (surface_model_method)**
  - **frequency of activation (10 days- for period ending 3 days before)**
  - **action on completion (notify availability)**
  - **error action (notify, temporary save of intermediate results), and**
  - **other method specific processing parameters**

systemtakes processing request and activates processing as requested

- **User receives notification of production completion and uses the embedded UR in request to retrieve it**

Scenario #2 - Step 14, 15

The user establishes a Data Acquisition Request (DAR) for cloud-free ASTER scenes to be acquired at within the

- **through advertising service, user identifies the ASTER production service**
- **using the DAR service interface installed on the desktop user specifies required data and the processing parameters**

system processes DAR and provides user with notifications each time a suitable image is acquired & further notification when it is processed

- **user receives notification each time a cloud-free scene for the defined region is processed**
- **user requests dissemination of the data**

- **user receives the data for verification of the NDVI surface model and stores it in their local SCF Data Server.**